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L3: Entry 41 of 68 File: DWPI May 2, 1996

DERWENT-ACC-NO: 1996-230815
DERWENT-WEEK: 199634

TITLE: A non woven fibrous battery plate separating material for use as a battery plate separator - comprises dry laid web with most fibres oriented in one direction and rest orthogonally, made of solvent spun cellulosic lyocell fibres which have been hydro-entangled after dry laying and bonding.

INVENTOR: KELLY, A A J; WOODINGS, C R

PATENT-ASSIGNEE:

ASSIGNEE	CODE
BONDED FIBRE FABRIC LTD	BONF
COURTAULDS PLC	COUR

PRIORITY-DATA: 1994GB-0021261 (October 21, 1994)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9613071 A1	May 2, 1996	E	016	H01M002/16
AU 9536709 A	May 15, 1996		000	H01M002/16

DESIGNATED-STATES: AL AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TT UA UG US UZ VN AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG

CITED-DOCUMENTS:1.Jnl.Ref; EP 503811 ; EP 521444 ; EP 572921 ; JP 59025164

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
WO 9613071A1	October 20, 1995	1995WO-GB02474	
AU 9536709A	October 20, 1995	1995AU-0036709	
AU 9536709A		WO 9613071	Based on

INT-CL (IPC): D01 F 2/00; D04 H 1/00; D04 H 1/48; H01 M 2/16

ABSTRACTED-PUB-NO: WO 9613071A
BASIC-ABSTRACT:

A non woven material for use as a battery plate separator comprises a dry laid web in which the fibre have most of the fibres oriented in one direction and the rest in an orthogonal direction made of solvent spun cellulosic lyocell fibres of 0.5 to 10 decitex which have been hydro-entangled after dry laying and bonding with a bonding agent or by heat fusible fibres.

USE - A battery plate separating material is provided.

ADVANTAGE - Inhibits the internal resistance of the battery.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: NON WOVEN FIBRE BATTERY PLATE SEPARATE MATERIAL BATTERY PLATE SEPARATE COMPRISE DRY LAY WEB FIBRE ORIENT ONE DIRECTION REST ORTHOGONAL MADE SOLVENT SPIN CELLULOSIC FIBRE HYDRO ENTANGLE AFTER DRY LAY BOND

DERWENT-CLASS: A11 A85 F04 L03 X16

CPI-CODES: A03-A01; A12-E06B; A12-S05G; F02-C01; F04-E; L03-E01A;

EPI-CODES: X16-F02;

ENHANCED-POLYMER-INDEXING:
Polymer Index [1.1] 018 ; G3634*R D01 D03 D11 D10 D23 D22 D31 D42 D76 F24 F34 H0293 P0599 G3623 ; R01852*R G3634 D01 D03 D11 D10 D23 D22 D31 D42 D50 D76 D86 F24 F29 F26 F34 H0293 P0599 G3623 ; S9999 S1092 S1070 ; S9999 S1183 S1161 S1070 Polymer Index [1.2] 018 ; N9999 N6166 ; B9999 B5254 B5243 B4740 ; N9999 N6962*R Polymer Index [1.3] 018 ; ND01 ; Q9999 Q7341 Q7330 ; N9999 N6020 N6008 ; N9999 N7067 N7034 N7023 ; N9999 N6939*R ; N9999 N6780*R N6655 ; K9574 K9483 ; K9676*R Polymer Index [2.1] 018 ; P1707 P1694 D01 ; S9999 S1616 S1605 Polymer Index [2.2] 018 ; Q9999 Q6791 ; K9518 K9483 ; K9712 K9676 Polymer Index [2.3] 018 ; ND01 ; Q9999 Q7341 Q7330 ; N9999 N6020 N6008 ; N9999 N7067 N7034 N7023 ; N9999 N6939*R ; N9999 N6780*R N6655 ; K9574 K9483 ; K9676*R Polymer Index [2.4] 018 ; R01740 G2335 D00 F20 H* O* 6A ; A999 A475 Polymer Index [3.1] 018 ; P1707 P1694 D01 ; S9999 S1092 S1070 ; S9999 S1183 S1161 S1070 Polymer Index [3.2] 018 ; B9999 B5254 B5243 B4740 ; N9999 N6166 Polymer Index [3.3] 018 ; ND01 ; Q9999 Q7341 Q7330 ; N9999 N6020 N6008 ; N9999 N7067 N7034 N7023 ; N9999 N6939*R ; N9999 N6780*R N6655 ; K9574 K9483 ; K9676*R Polymer Index [4.1] 018 ; R24077*R R01852 G3634 G3623 D01 D03 D11 D10 D23 D22 D31 D42 D50 D76 D86 F24 F29 F26 F34 H0293 P0599 ; S9999 S1285*R Polymer Index [4.2] 018 ; ND01 ; Q9999 Q7341 Q7330 ; Q9999 Q8060 ; K9574 K9483 ; K9676*R

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1996-073008
Non-CPI Secondary Accession Numbers: N1996-193753

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
AU 760428B	September 17, 1999	1999AU-0062531	
AU 760428B		AU 9962531	Previous Publ.
AU 760428B		WO 200018996	Based on
WO 200018996A1	September 17, 1999	1999WO-US21497	
AU 9962531A	September 17, 1999	1999AU-0062531	
AU 9962531A		WO 200018996	Based on
US 6177370B1	September 29, 1998	1998US-0163216	
EP 1131480A1	September 17, 1999	1999EP-0949712	
EP 1131480A1	September 17, 1999	1999WO-US21497	
EP 1131480A1		WO 200018996	Based on
JP2002525450W	September 17, 1999	1999WO-US21497	
JP2002525450W	September 17, 1999	2000JP-0572437	
JP2002525450W		WO 200018996	Based on
MX2001003172A1	March 27, 2001	2001MX-0003172	
US 6550115B1	September 29, 1998	1998US-0163216	Div ex
US 6550115B1	October 16, 2000	2000US-0690045	
US 6550115B1		US 6177370	Div ex

INT-CL (IPC): B32 B 5/06; B32 B 5/26; B32 B 7/08; D04 H 1/42; D04 H 1/44; D04 H 1/46; D04 H 3/16; D04 H 13/00; D06 M 17/00

ABSTRACTED-PUB-NO: US 6177370B
BASIC-ABSTRACT:

NOVELTY - Nonwoven composite fabric comprises:

(a) spunbond and a meltblown web (20) layer;

(b) synthetic fiber (40) zone; and

(c) short fiber (60) zone.

At least a portion of the short fiber is entwined with the first two zones.

DETAILED DESCRIPTION - Nonwoven composite fabric (10) comprises:

(a) a first zone of synthetic fiber (20) structure containing a spunbond and a meltblown web layer;

(b) a second zone of synthetic fiber structure (40) positioned near the first zone; and

(c) a third zone of short fiber (60) positioned between the first and second zones.

At least a portion of the short fiber is entwined with the first two zones.

An INDEPENDENT CLAIM is also included for producing a fabric, including:

(i) providing a first zone of prebonded synthetic structure, a second zone of synthetic fiber and a short fiber third zone, and

(ii) hydro entangling the first and the second zone.

USE - Used for use in tea bags, medical gowns, drapes, cover stock, and food service and industrial wipers.

ADVANTAGE - The hydraulically entangled nonwoven composite fabrics has improved abrasion resistance and requires no additional bonding after hydro entangling.

DESCRIPTION OF DRAWING(S) - The figure shows an enlarged cross-section of a fabric.

Fabric 10

First zone of synthetic fiber 20

Second zone of synthetic fiber structure 40

Short fiber 60
ABSTRACTED-PUB-NO:

WO 200018996A
EQUIVALENT-ABSTRACTS:

NOVELTY - Nonwoven composite fabric comprises:

(a) spunbond and a meltblown web (20) layer;

(b) synthetic fiber (40) zone; and

(c) short fiber (60) zone.

At least a portion of the short fiber is entwined with the first two zones.

DETAILED DESCRIPTION - Nonwoven composite fabric (10) comprises:

(a) a first zone of synthetic fiber (20) structure containing a spunbond and a meltblown web layer;

(b) a second zone of synthetic fiber structure (40) positioned near the first zone; and

(c) a third zone of short fiber (60) positioned between the first and second zones.

At least a portion of the short fiber is entwined with the first two zones.

An INDEPENDENT CLAIM is also included for producing a fabric, including:

(i) providing a first zone of prebonded synthetic structure, a second zone of synthetic fiber and a short fiber third zone, and

(ii) hydro entangling the first and the second zone.

USE - Used for use in tea bags, medical gowns, drapes, cover stock, and food service and industrial wipers.

ADVANTAGE - The hydraulically entangled nonwoven composite fabrics has improved abrasion resistance and requires no additional bonding after hydro entangling.

DESCRIPTION OF DRAWING(S) - The figure shows an enlarged cross-section of a fabric:

Fabric 10

First zone of synthetic fiber 20

Second zone of synthetic fiber structure 40

Short fiber 60

CHOSEN-DRAWING: Dwg.2/11

TITLE-TERMS: NONWOVEN COMPOSITE FABRIC MEDICAL GOWN TWO ZONE SYNTHETIC CONTAIN WEB LAYER SHORT ZONE

DERWENT-CLASS: D22 F07 P73

CPI-CODES: D03-D02A; D09-C04D; F02-C01; F02-C02B; F04-E; F04-E04;

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C2000-088719

WEST

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L3: Entry 20 of 68 File: DWPI May 15, 2003

DERWENT-ACC-NO: 2000-293196
DERWENT-WEEK: 200337

TITLE: Nonwoven composite fabric, for e.g. medical gowns, has two zones of synthetic fiber containing spunbond and meltblown web layers, and short fiber zone

INVENTOR: BROWN, L M; CLEVELAND, T R ; MAYFIELD, F W ; RADWANSKI, F R ; SKOOG, H

PATENT-ASSIGNEE:

ASSIGNEE	CODE
KIMBERLY-CLARK WORLDWIDE INC	KIMB

PRIORITY-DATA: 1998US-0163216 (September 29, 1998), 2000US-0690045 (October 16, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 760428 B	May 15, 2003		000	D04H013/00
WO 200018996 A1	April 6, 2000	E	043	D04H013/00
AU 9962531 A	April 17, 2000		000	
US 6177370 B1	January 23, 2001		000	B32B005/06
EP 1131480 A1	September 12, 2001	E	000	D04H013/00
JP 2002525450 W	August 13, 2002		040	D04H001/42
MX 2001003172 A1	October 1, 2001		000	D04H001/46
US 6550115 B1	April 22, 2003		000	D04H001/46

DESIGNATED-STATES: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION-DATA: